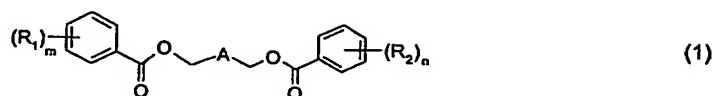


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Claims

1. A colour developer of the formula (1)



5 wherein

A stands for a unsubstituted or substituted divalent aromatic radical, and

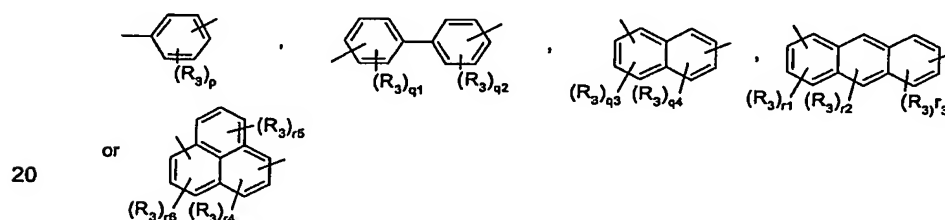
R₁ and R₂ are independent of each other and stand for -OH, unsubstituted or substituted C₁-C₈alkyl, unsubstituted or substituted C₁-C₈alkoxy, unsubstituted or substituted phenyl or naphthyl, -COOR_{1a}, wherein R_{1a} stands for hydrogen, unsubstituted or substituted C₁-

10 C₈alkyl, benzyl or unsubstituted or substituted phenyl, -C(O)R_{1a}, or -NR_{1a}R_{1b}, wherein R_{1b}, independently from R_{1a}, stands for hydrogen, unsubstituted or substituted C₁-C₈alkyl, benzyl or unsubstituted or substituted phenyl, m stands for 0, 1, 2, 3, 4 or 5, n stands for 0, 1, 2, 3, 4, or 5, with the proviso, that if A stands for para-phenylene, R₁ for hydroxy (m≠0), then R₂ is not hydroxy.

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2. A colour developer according to claim 1, wherein the divalent aromatic radical is phenylene, biphenylene, naphthylene, or anthrylene, which can be substituted.

3. A colour developer according to claims 1 or 2, wherein the divalent aromatic radical is



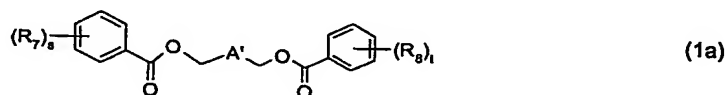
wherein R₃ stands for hydrogen, hydroxy, unsubstituted or substituted phenyl or naphthyl, unsubstituted or substituted C₁-C₂₄alkyl, unsubstituted or substituted C₅-C₁₀cycloalkyl, unsubstituted or substituted C₁-C₂₄alkoxy, unsubstituted or substituted phenoxy or naphthoxy, halomethyl, -COOR₄, wherein R₄ stands for hydrogen or C₁-C₈alkyl, -CONR₅R₆,

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wherein R_5 and R_6 , independently from each other stand for hydrogen or C_1 - C_8 alkyl, or - NO_2 , p , $q1$ and $q2$, independently from each other stand for 0, 1, 2, 3, 4, $q3$, $q4$, $r1$, $r3$ and $r5$, independently from each other, stand for 0, 1, 2, or 3, $r2$, $r4$ and $r6$, independently from each other, stand for 0, 1 or 2.

5

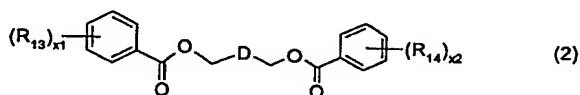
4. A mixture consisting of
(a) a color developer (1a)



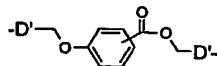
wherein

- 10 A' stands for a unsubstituted or substituted divalent aromatic radical,
 R_7 and R_8 are independent of each other and stand for -OH, unsubstituted or substituted C_1 - C_8 alkyl, unsubstituted or substituted C_1 - C_8 alkoxy, unsubstituted or substituted phenyl or naphthyl, -COOR_{1a}, wherein R_{1a} stands for hydrogen, unsubstituted or substituted C_1 - C_8 alkyl, benzyl or unsubstituted or substituted phenyl, -C(O)R_{1a}, or -NR_{1a}R_{1b}, wherein R_{1b} ,
 15 independently from R_{1a} , stands for hydrogen, unsubstituted or substituted C_1 - C_8 alkyl, benzyl or unsubstituted or substituted phenyl,
 s stands for 0, 1, 2, 3, 4 or 5, t stands for 0, 1, 2, 3, 4, or 5,
 and
 (b) a compound of formula (2)

20



wherein D stands for



- wherein D' stands for a unsubstituted or substituted divalent aromatic radical, R_{13} stands for a substituent as defined for R_7 , R_{14} stands for a substituent as defined for R_8 , $x1$ stands for
 25 0, 1, 2, 3, 4 or 5, $x2$ stands for 0, 1, 2, 3, 4, or 5,
 and wherein the weight ratio of (1a) to (2) is chosen in the range from 99.9:0.1 to 0.1:99.9.

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5. A compound of formula (2) as defined in claim 4.

6. A heat sensitive composition consisting of

- 5 a) a colour forming compound, and
b) a colour developer of the formula (1) as defined in claim 1.

7. A heat sensitive composition consisting of

- a) a colour forming compound, and
10 b) a mixture of colour developer of the formula (1a) and compound of formula (2) as defined in claim 4.

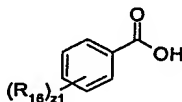
8. A heat sensitive recording material comprising the colour developer (1) as defined in claim 1 or the mixture as defined in claim 4.

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9. A heat sensitive recording material comprising the heat sensitive composition as defined in claim 6 or the heat sensitive composition as defined in claim 7.

10. A process for the manufacture of a colour developer of formula (1) by reacting a benzoic acid derivative with a dihalogen derivative, characterized in

- 20 (a) reacting benzoic acid derivative of formula (A1)



(A1)

with a dihalogen derivative of formula (B1)



(B1)

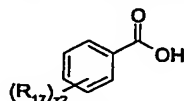
- 25 wherein R_{18} stands for -OH, unsubstituted or substituted C_1 - C_8 alkyl, unsubstituted or substituted C_1 - C_8 alkoxy, unsubstituted or substituted phenyl or naphthyl, $-COOR_{18}$, wherein R_{18} stands for hydrogen, unsubstituted or substituted C_1 - C_8 alkyl, benzyl or unsubstituted or substituted phenyl, $-C(O)R_{18}$, or $-NR_{18}R_{1b}$, wherein R_{1b} , independently from R_{18} , stands for

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hydrogen, unsubstituted or substituted C₁-C₈alkyl, benzyl or unsubstituted or substituted phenyl, z1 stands for 0, 1, 2, 3, 4 or 5,

A₁ stands for a unsubstituted or substituted divalent aromatic radical, or

(b) reacting a mixture of benzoic derivatives (A1) and (A2)



(A2)

5

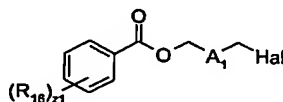
with a dihalogen derivative of formula (B1),

wherein R₁₇, different from R₁₈, stands for -OH, unsubstituted or substituted C₁-C₈alkyl, unsubstituted or substituted C₁-C₈alkoxy, unsubstituted or substituted phenyl or naphthyl, -COOR₁₈, -C(O)R₁₈, or

10 -NR_{1a}R_{1b}, z2 stands for 0, 1, 2, 3, 4 or 5,

or

(c) reacting benzoic acid derivative of formula (A1) with dihalogen derivative (B1) to yield compound (C1)



(C1)

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and then reacting compound (C1) with compound of formula (A2),

wherein the molar ratio of (A1) or ((A1)+(A2)) to (B1) is chosen in the range of from 3:1 to 10:1.

20

11. A process for the manufacture of a mixture of colour developer (1) and compound of formula (2) by reacting a benzoic acid derivative with a dihalogen derivative, characterized in

(a) reacting benzoic acid derivative of formula (A1) as defined in claim 10,

with a dihalogen derivative of formula (B1) as defined in claim 10, or

(b) reacting a mixture of benzoic derivatives (A1) and (A2) as defined in claim 10,

25 with a dihalogen derivative of formula (B1),

or

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(c) reacting benzoic acid derivative of formula (A1) with dihalogen derivative (B1) to yield compound (C1) as defined in claim 10 and then reacting compound (C1) with compound of formula (A2), wherein the molar ratio of (A1) or ((A1)+(A2)) to (B1) is chosen in the range of less than 3:1.

5

12. Use of the compounds of formula (1) as defined in claim 1 for the manufacture of a heat sensitive recording material.

10 13. Use of the mixture of developer (1a) and compound (2) as defined in claim 4 for the manufacture of a heat sensitive recording material.

14. Use of compound of formula (2) as defined in claim 5 for the manufacture of a heat sensitive recording material.

15 15. A mixture of a colour developer of formula (1) as defined in claim 1 and a compound of formula (2) as defined in claim 4, obtainable by the process as defined in claim 11.

20 16. A process for the manufacture of compound (2) as defined in claim 4, characterized in reacting compound (C1) as defined in claim 10 with colour developer (1) as defined in claim 1.